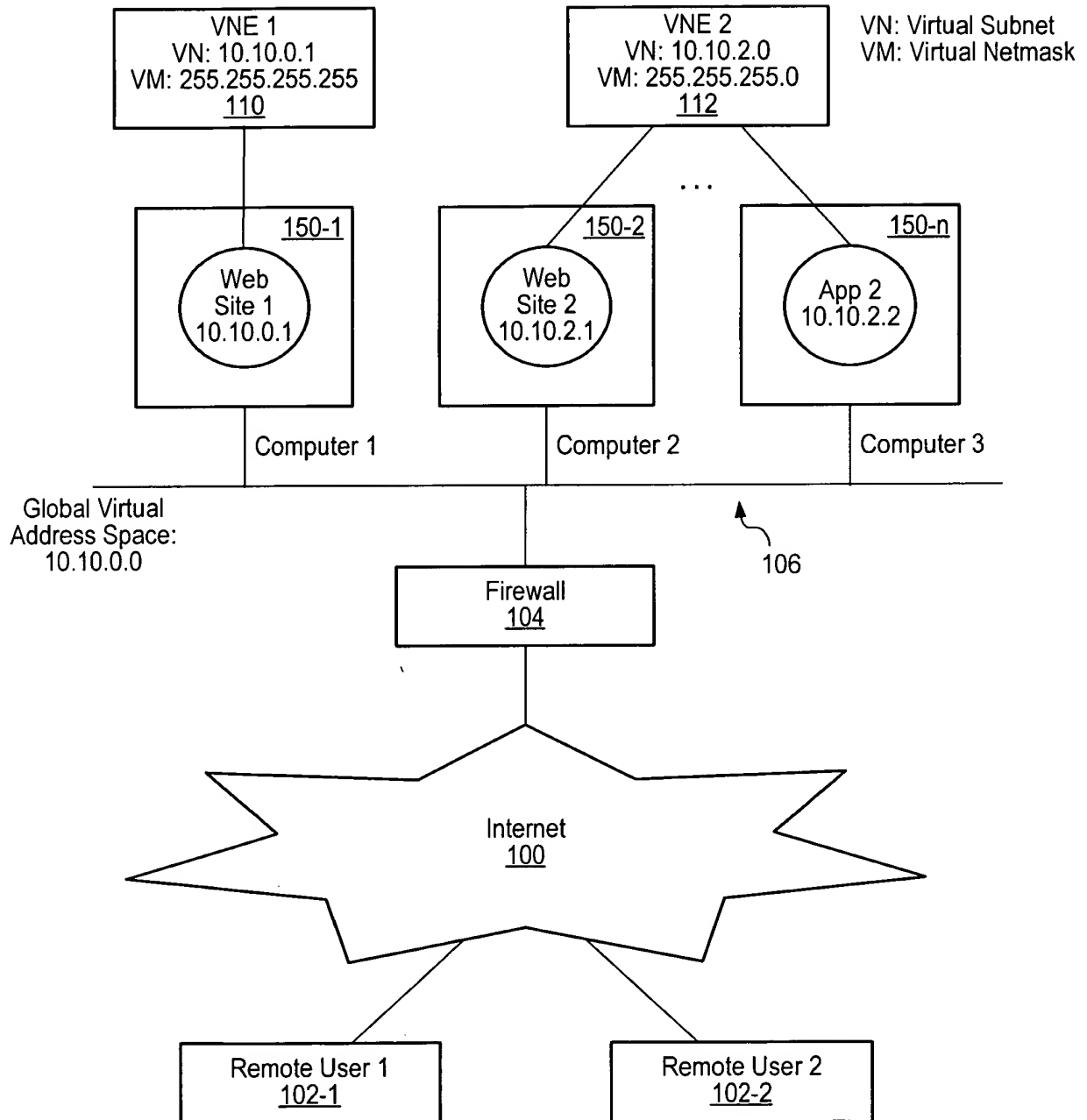




# Replacement Sheet

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The above diagram illustrates the virtual network environments. Virtual Network Environment 1 contains one application WEB SITE 1, is defined by the Virtual Network Address 10.10.0.1 resides solely on computer 1. Virtual Network Environment 2 contains two applications, WEB SITE 2 and APP 2, and spans two computers, Computer 2 and Computer 3. The virtual network of VNE 2 is 10.10.2.0.

Fig. 1



Replacement Sheet

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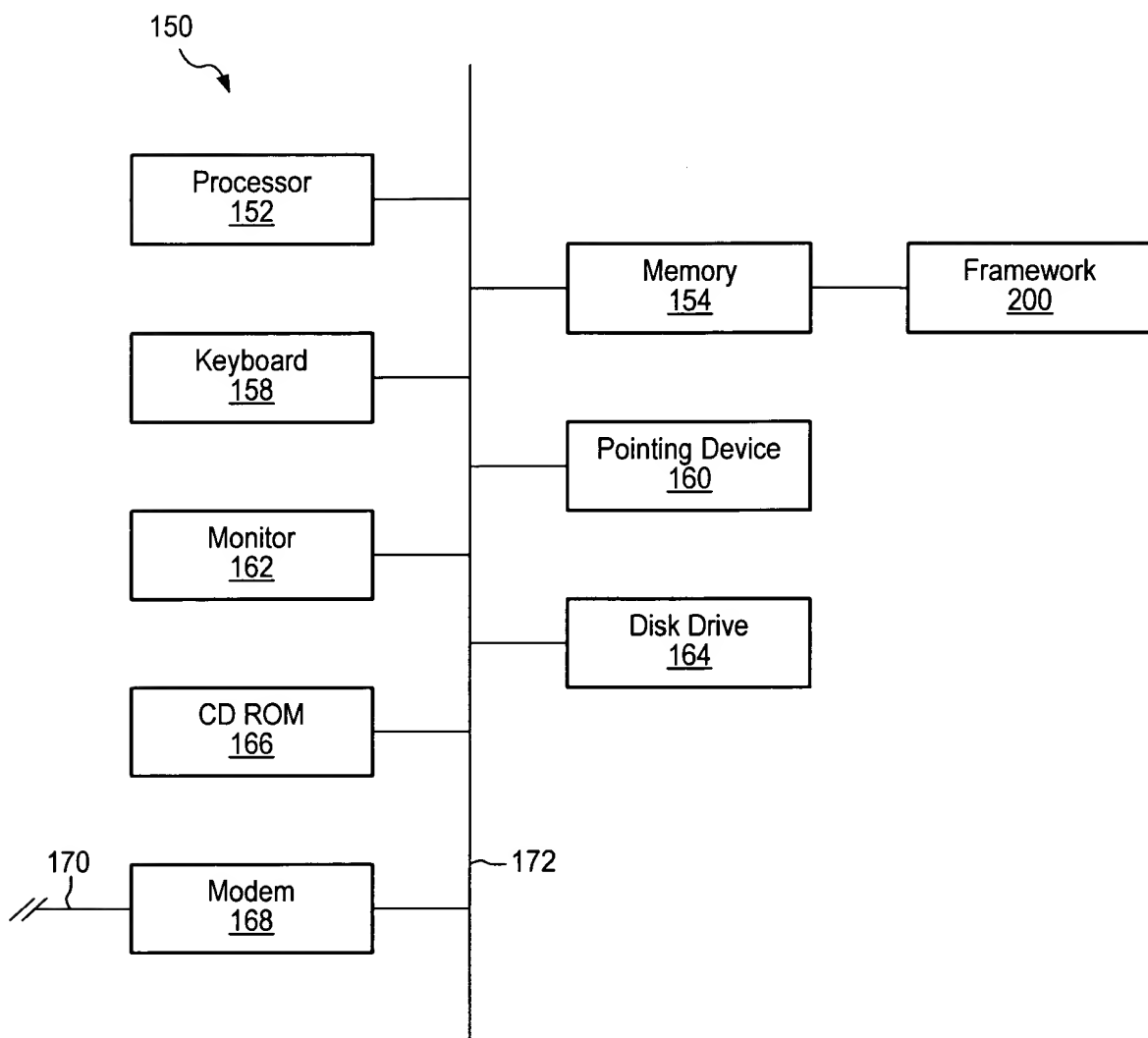
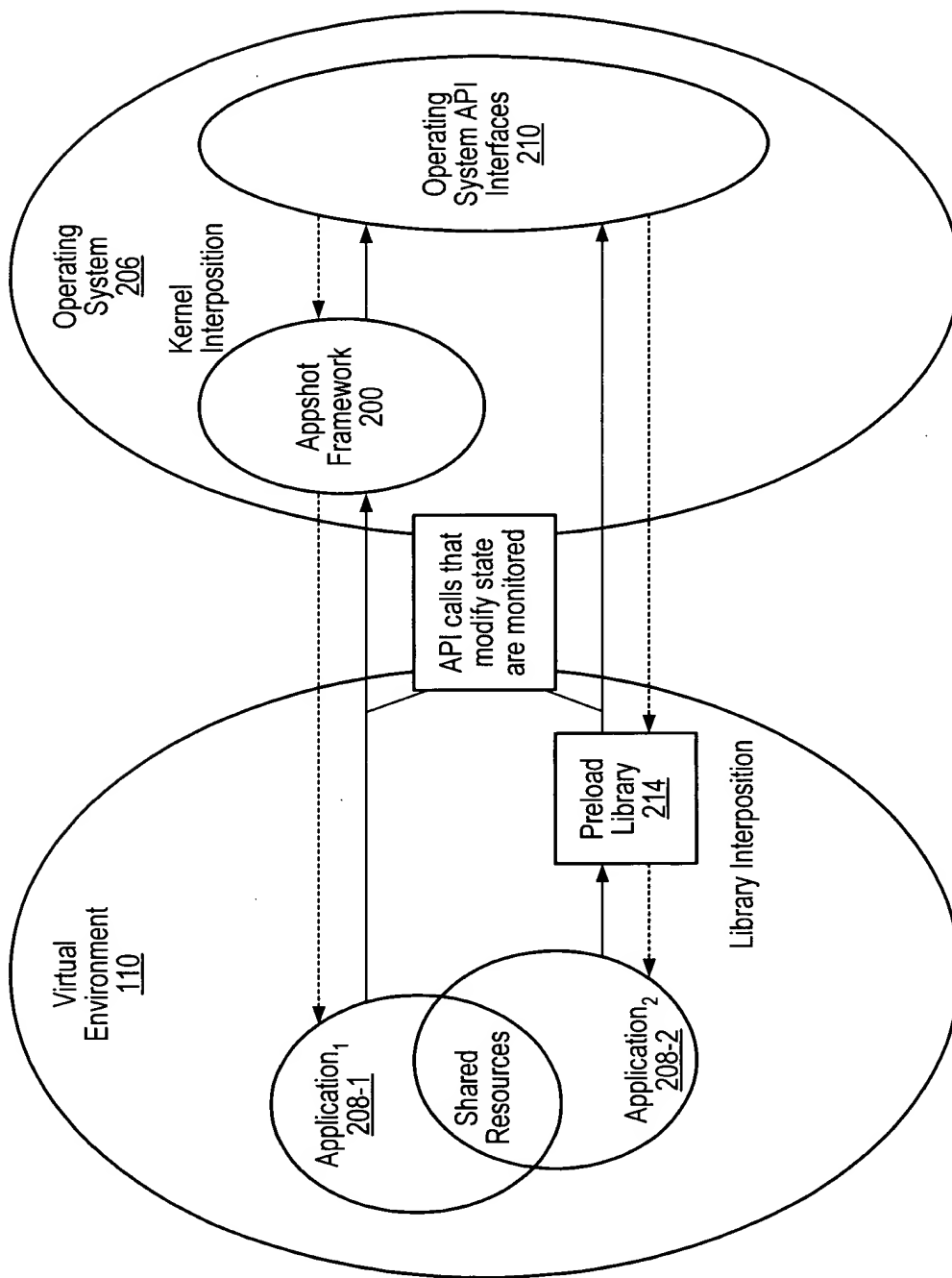
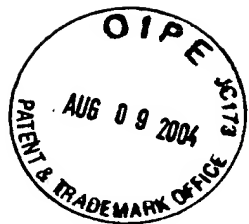
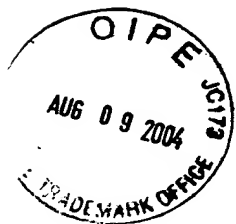


Fig. 2



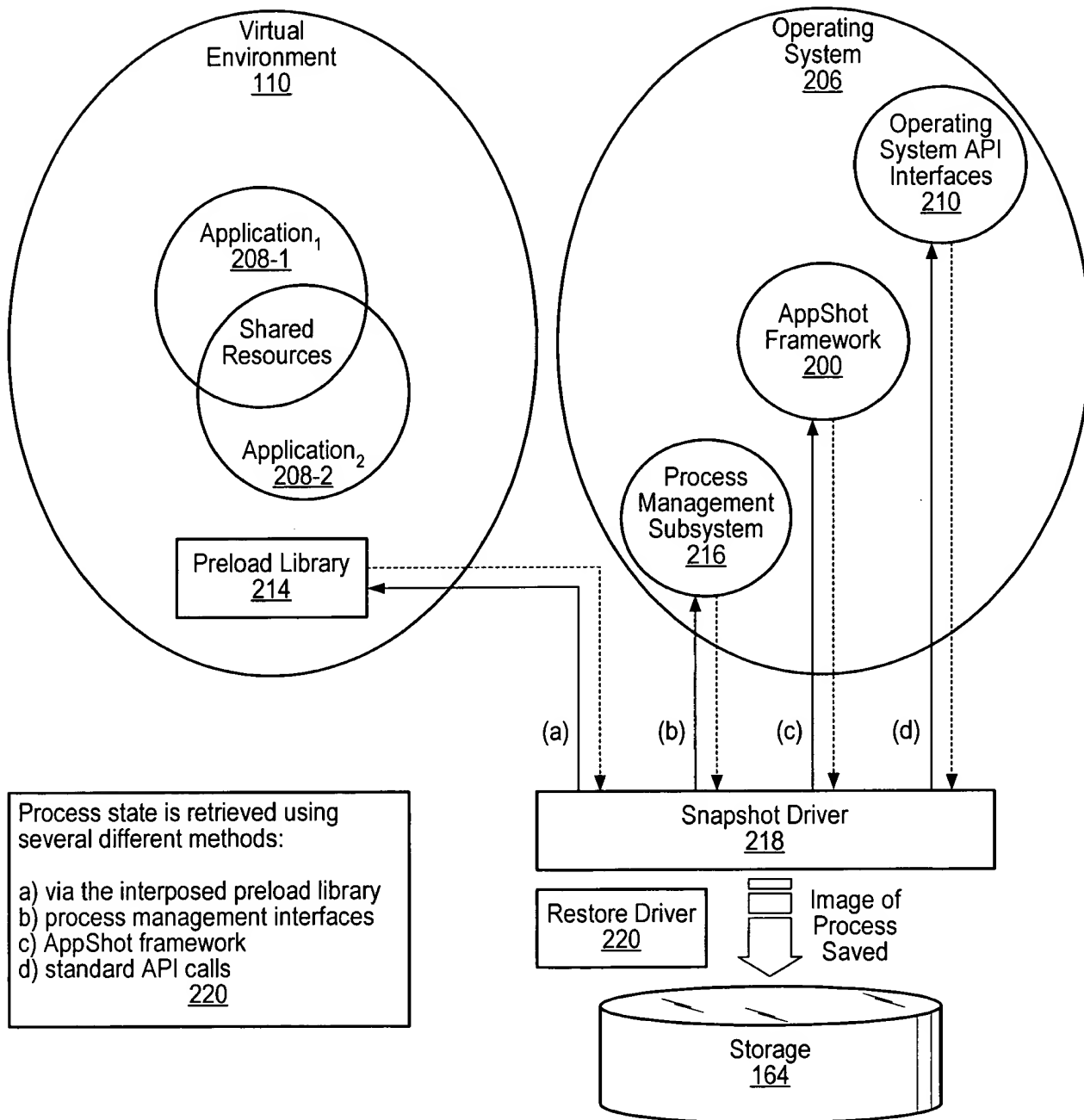
Tracking application state via library and kernel interposition.

Fig. 3



# Replacement Sheet

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Capture of an application's run-time state.

Fig. 4

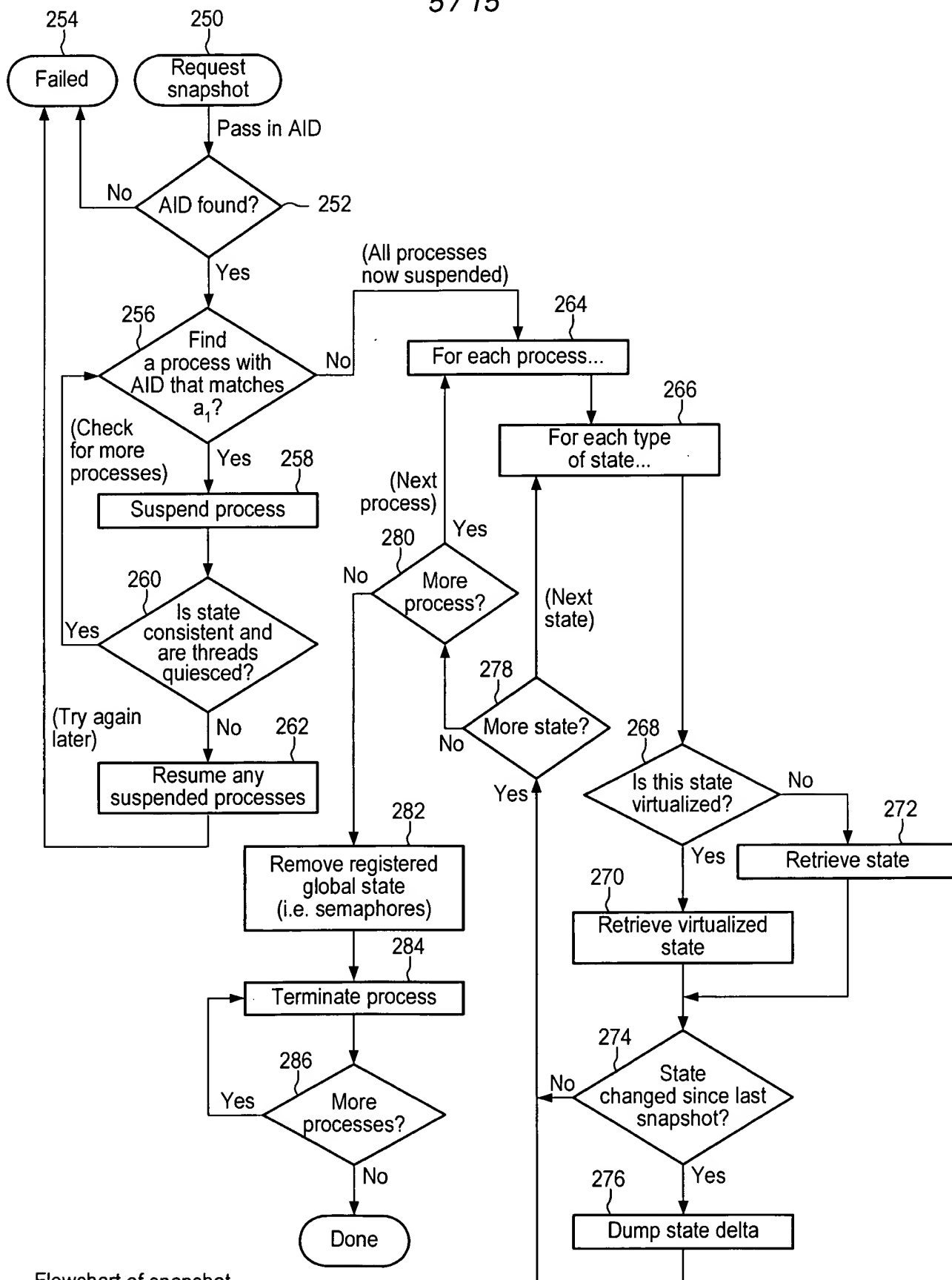


Fig. 5

# Replacement Sheet

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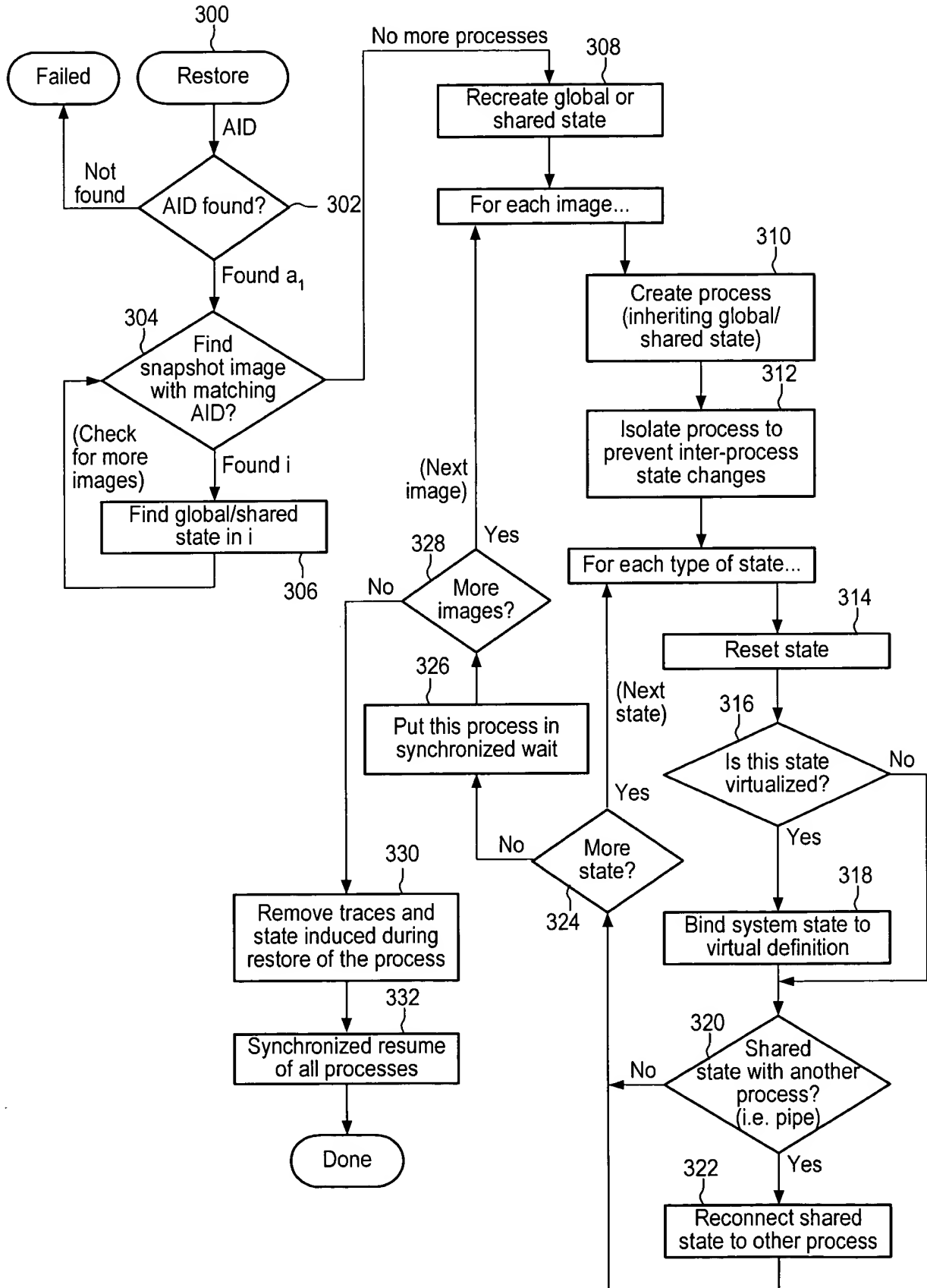
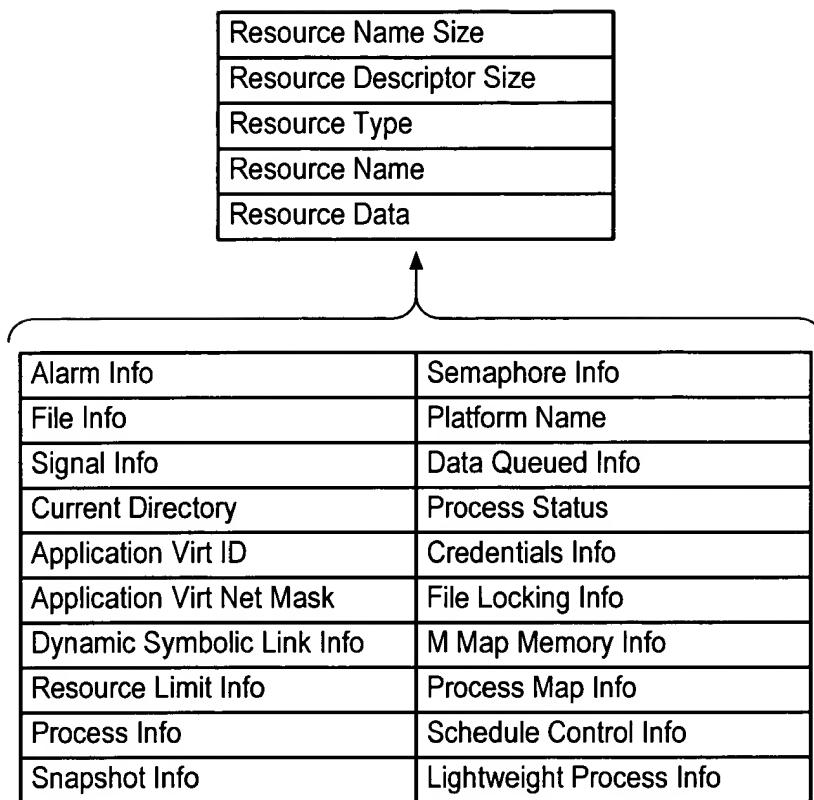


Fig. 6



## Replacement Sheet

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*Fig. 7*

# Replacement Sheet

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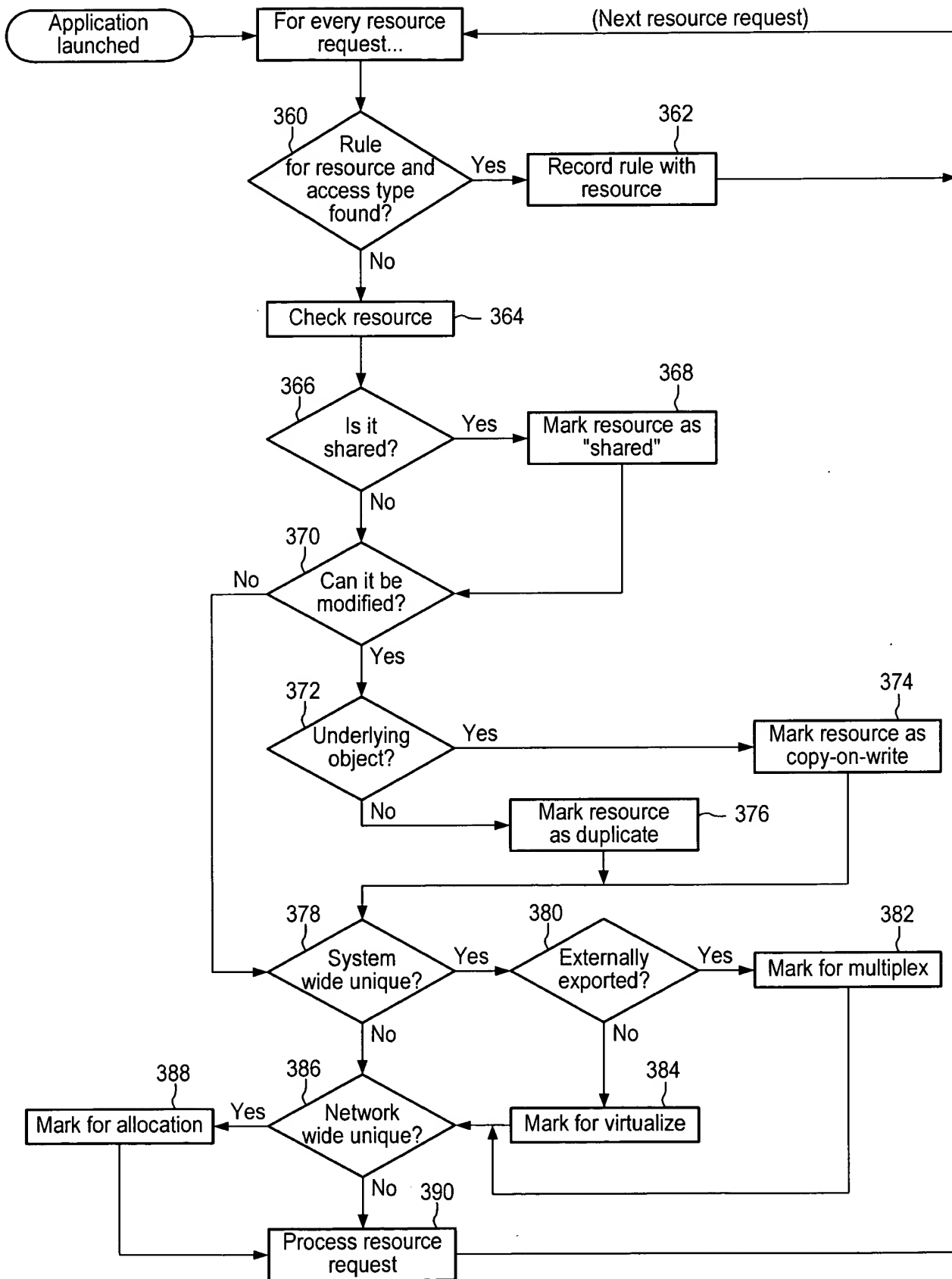


Fig. 8

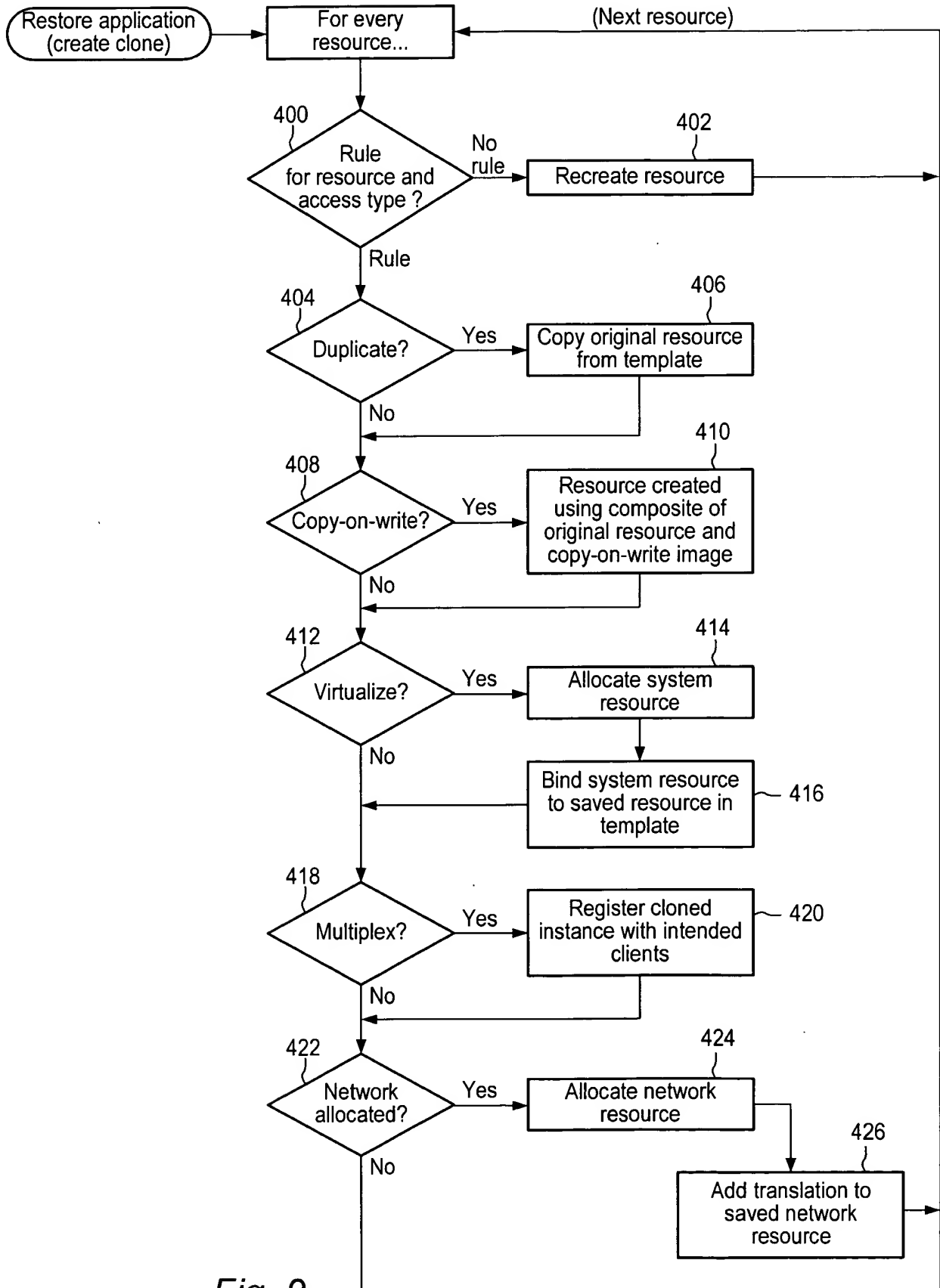
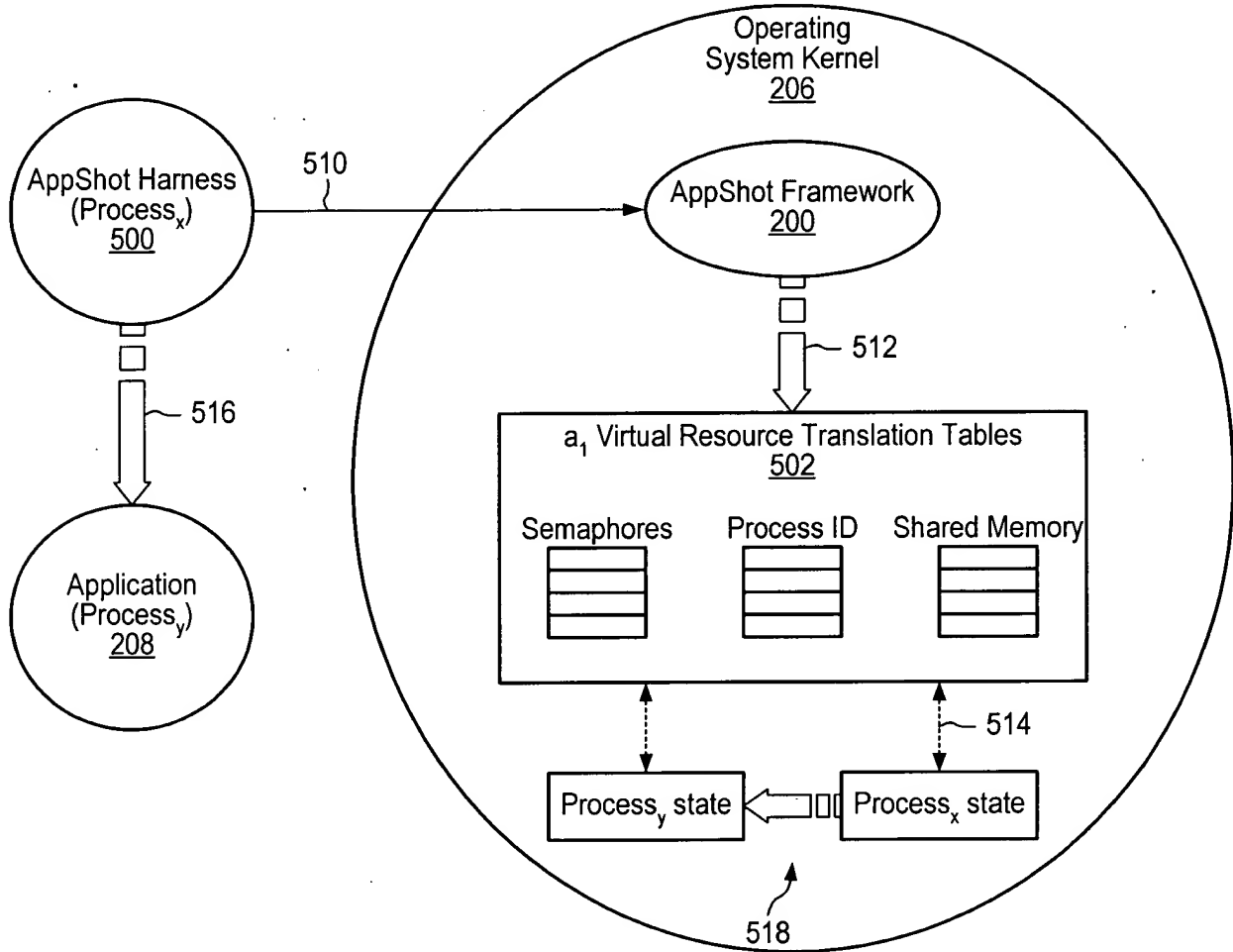
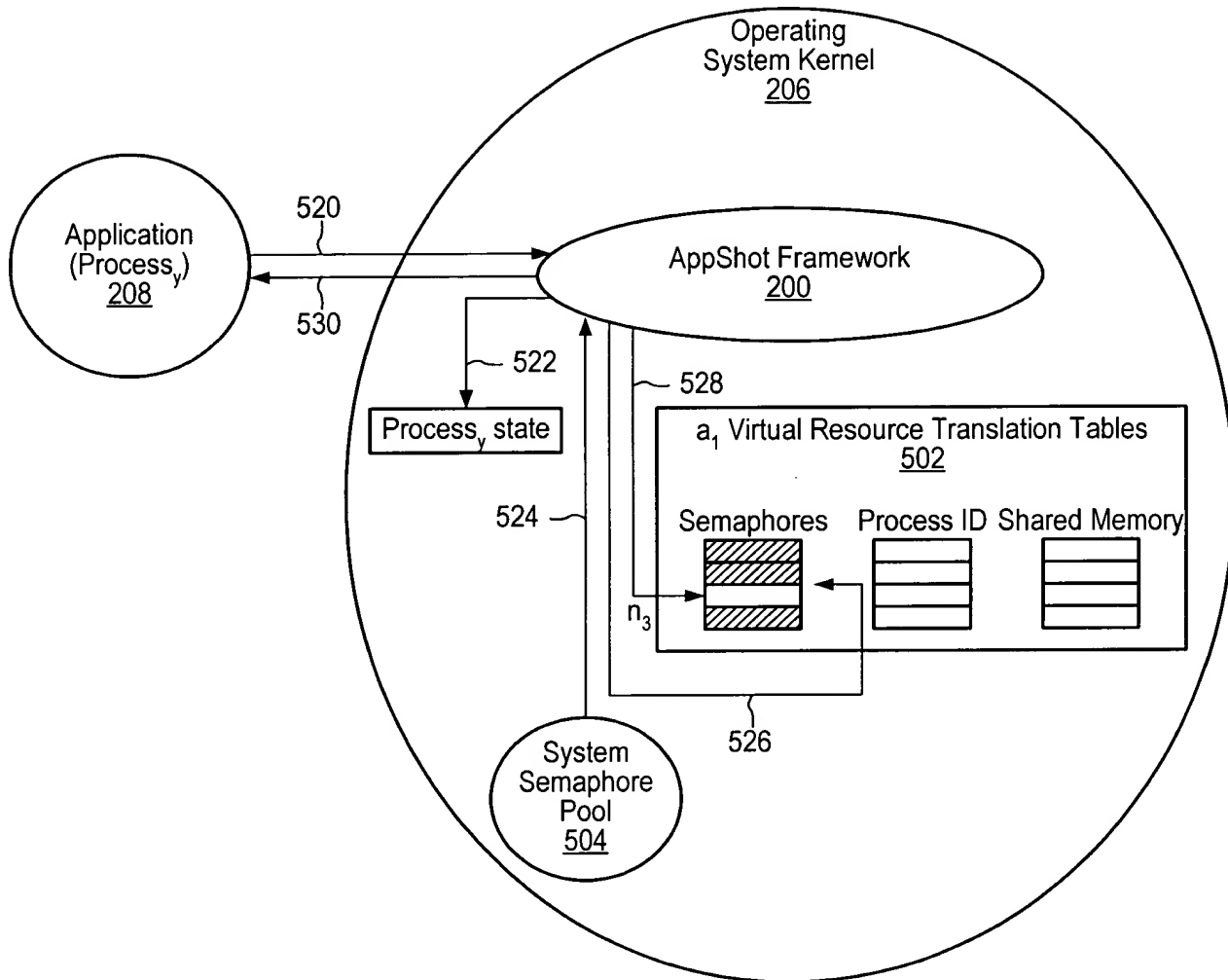


Fig. 9



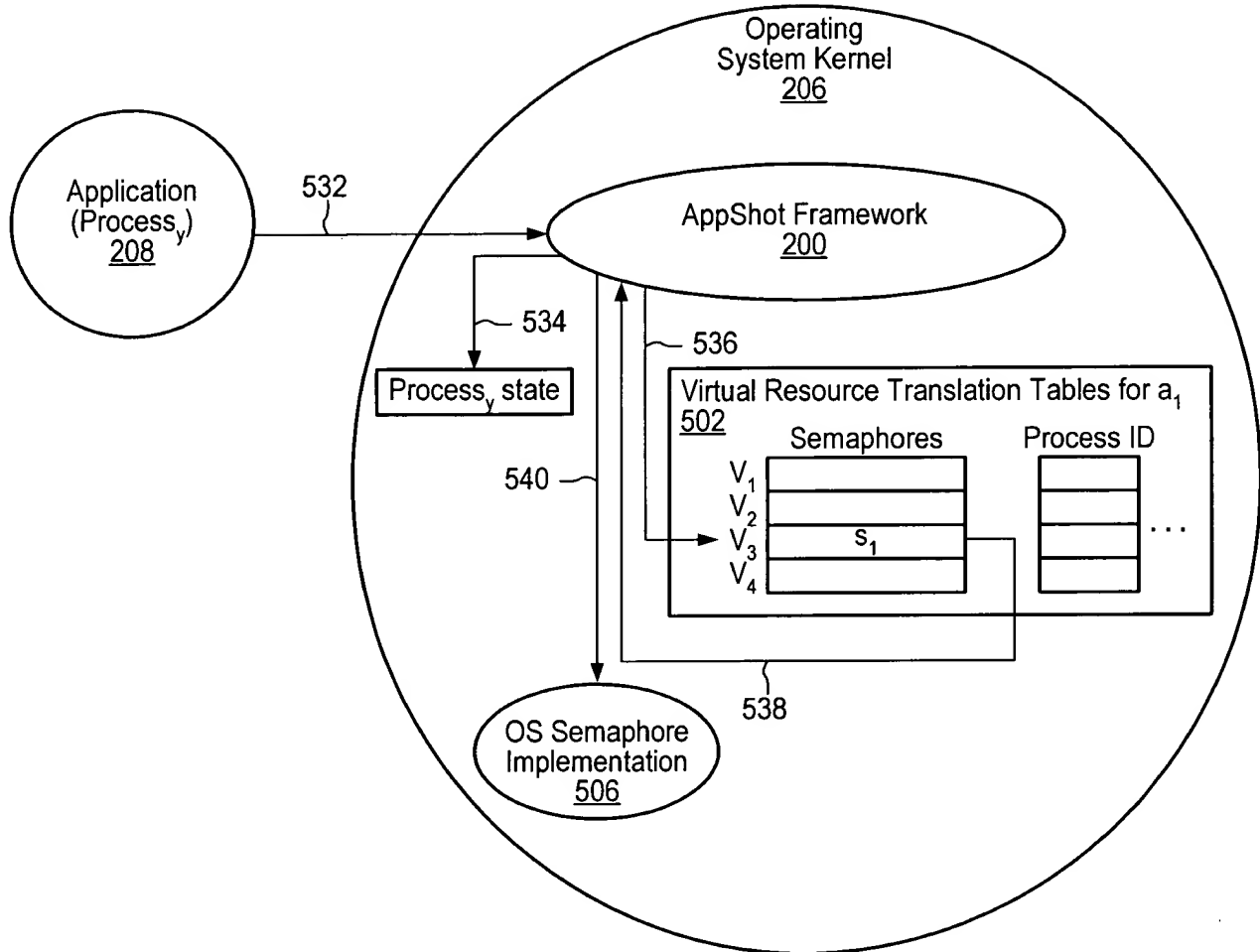
Registration of an application using virtual resource ID's

Fig. 10



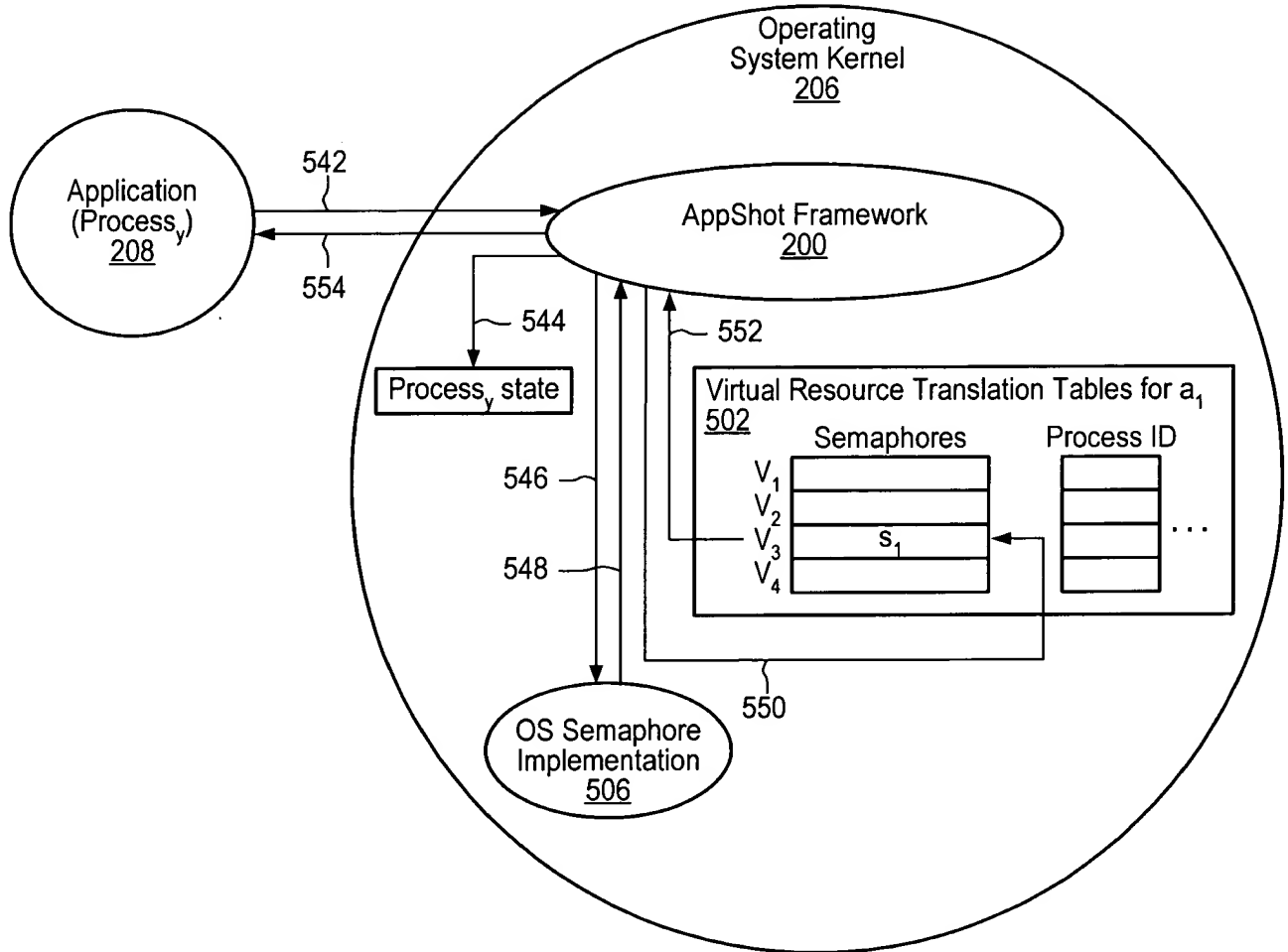
Allocation of a virtual resource (i.e. semaphore)

Fig. 11



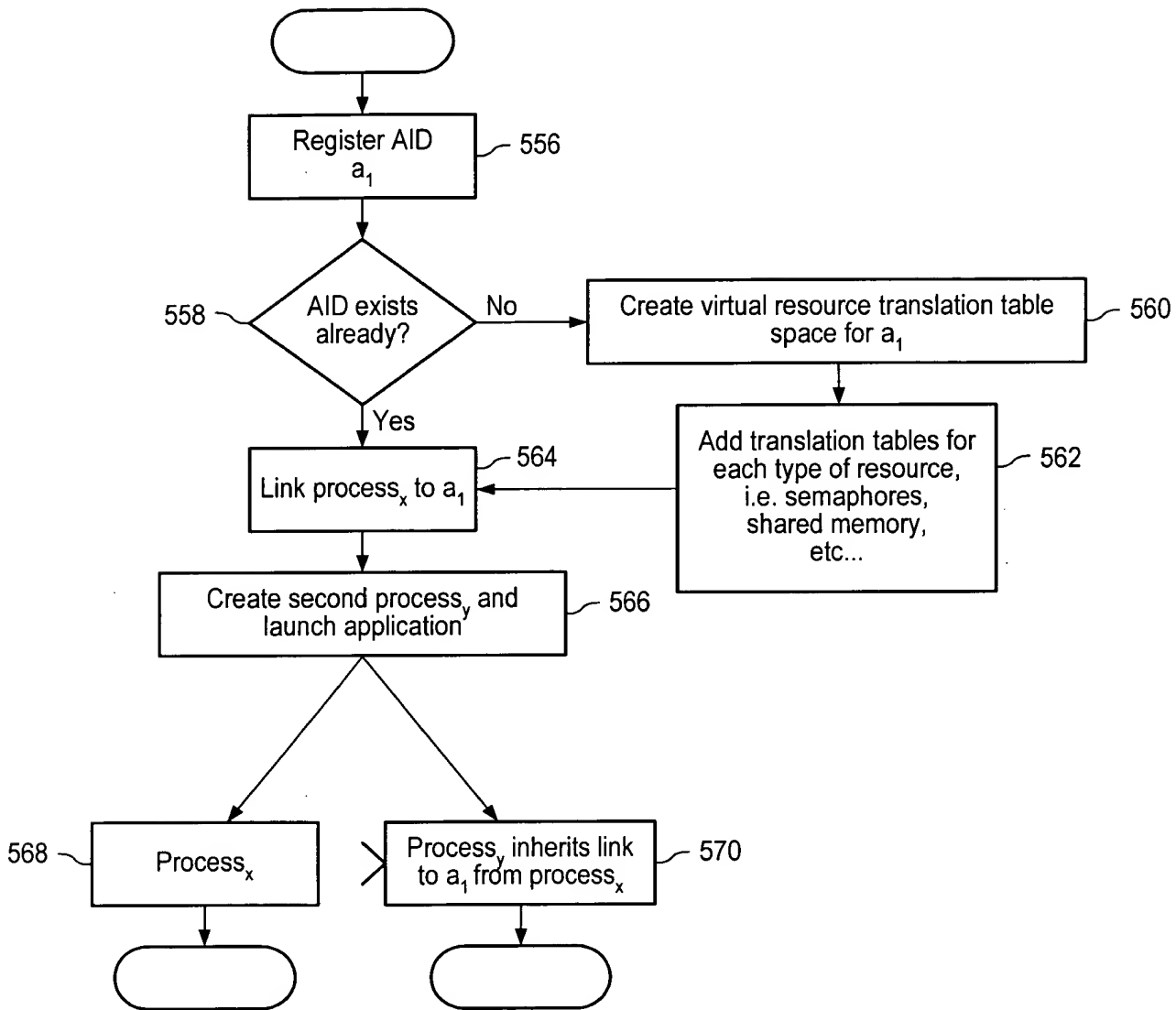
Translation of a virtual resource (i.e. semaphore), virtual to system

Fig. 12



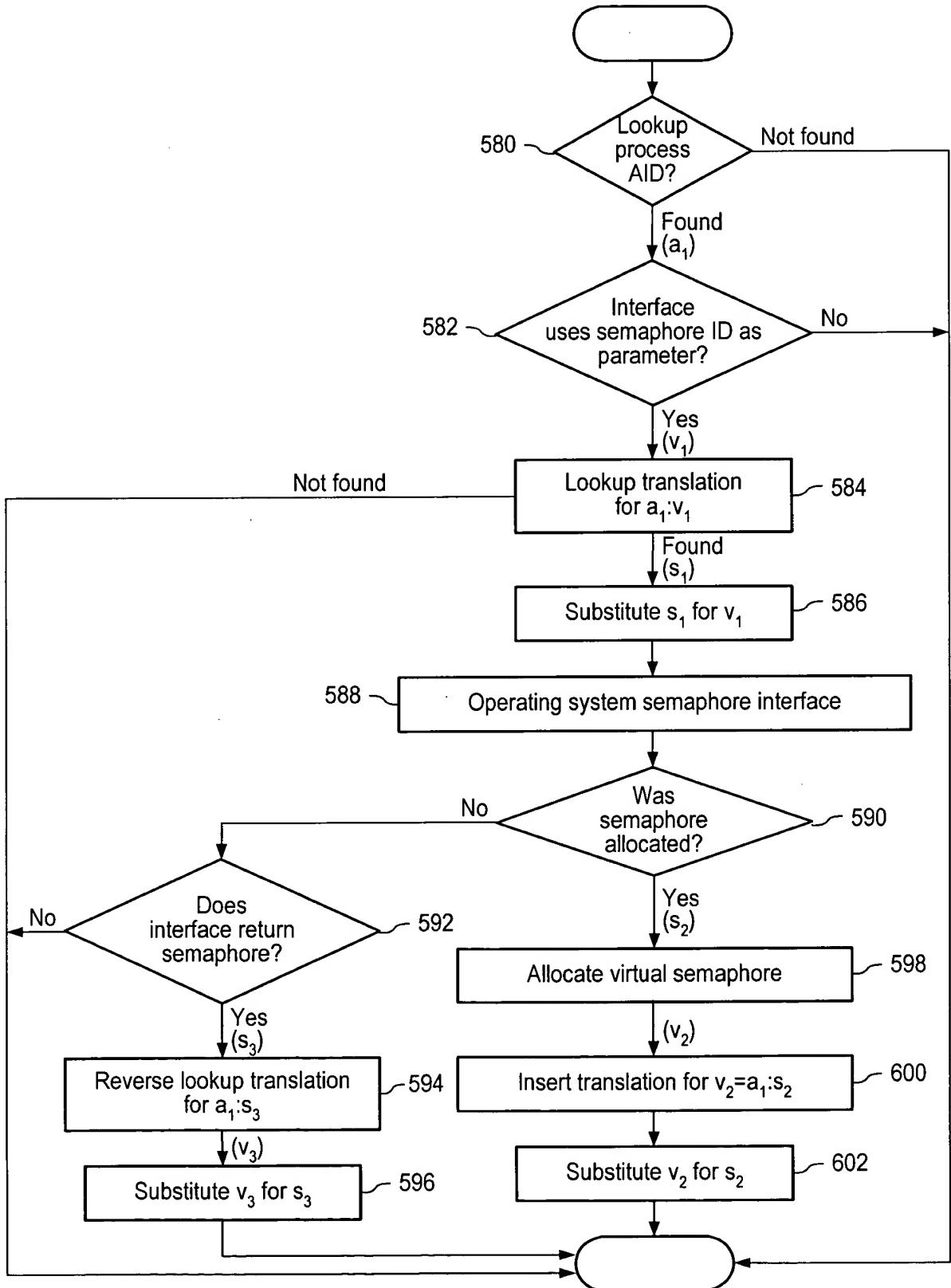
Translation of a virtual resource (i.e. semaphore), system to virtual

Fig. 13



Flowchart describing creation of virtual translation tables

Fig. 14



Flowchart depicting translation of a virtual resource (i.e. semaphore)

Fig. 15